

Application Serial No. 09/696,519

Examiner Goff expressed concern that the claimed viscosity range may constitute new matter. However, the undersigned explained that case law would be referenced in the formal response that explains how claiming ranges derived from samples described in an original application is permitted under 35 U.S.C. § 112, first paragraph. The undersigned elaborated that physical ranges of materials can be claimed if samples that are clearly described have been disclosed in the original application.

The Examiner also asked if the shear stress was constant when the ranges for the MI and viscosity were calculated. The undersigned stated he would ask the inventor, Dr. Hugh Gardner, if he could explain shear stress in his Rule 132 Declaration. The Rule 132 Declaration, as filed and attached to this response, does discuss shear stress as requested by the Examiner.

The Rule 132 Declaration explains that ASTM D 1238 is carried out under constant shear stress as noted in paragraph 17 of the Declaration. Meanwhile, ASTM D 3835 is carried out under a variable shear stress as evidenced by the Tables for the three capillary rheometry results found in paragraphs 31, 32, and 33 of the Rule 132 Declaration.

The Applicants reiterated to Examiner Goff that the thermoplastic polyethylene resin that is part of the claimed combination of the elements in each of the independent claims yields unexpected results. As one of ordinary skill in the art, Dr. Hugh Gardner supports this assertion in the attached Rule 132 Declaration.

The Applicant and the undersigned request the Examiner to review this interview summary and to approve it by writing "Interview Record OK" along with his initials and the date next to this summary in the margin as discussed in MPEP § 713.04, p. 700-202.

Interview

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8/28/05

Legal Precedent that Supports Claimed Ranges Derived from Samples That Are Described in Original Application are Permitted under 35 U.S.C. 112, First Paragraph

The Applicants respectfully submit that the addition of the viscosity range in each of the independent claims for the thermoplastic binder is not new matter under 35 U.S.C. § 112, first paragraph because the viscosity range is a physical property that was calculated from the samples that were adequately described in the original application.

common carpet materials, such as polypropylene backings and nylon, polyester and polypropylene face yarns, soften at temperatures up to about 190°C, provided that in the case of thermoplastic binders that are contacted with a tufted backing before heating to soften the resin of the binder, softening points are up to about 150°C. Such resins preferably have flow properties at such temperatures corresponding to MIs of about 1 to about 200g/10 min., more preferably from about 2 to about 150 g/10 min., and most preferably from about 5 to about 100 g/10 min.

As previously described, preferred compositions of the resins are polyethylenes, ethylene-propylene copolymers and blends containing the same due to their beneficial combination of softening points well suited to use with common backing and face yarn materials, good flow properties or deformability when melted or softened, and suitable cohesive strength for good bonding of stitches and lamination of secondary backings if used. For carpets with nylon face yarns, thermoplastic binders comprising resins with polar functionality or resins modified by addition of such functional groups, and especially hydroxyl, carboxyl or amide functionality, can provide enhanced bonding to face yarns as a result of interaction between the functional groups of the binder resin and the amide linkages of the nylon. Examples of resins having polar functionality include ethylene-acrylic acid copolymers, maleated polypropylenes and maleated styrene-butadiene and styrene-ethylene-butylene copolymers.

The thermoplastic binder can consist entirely or essentially of one or more thermoplastic resins or it can contain one or more resins in combination with additives and modifiers if desired; examples include pigments and colorants, flow aids, flame retardants, antimicrobials, stabilizers and process aids, fillers and extenders. Binders consisting entirely or essentially of